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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/781,620

02/20/2004

Satoshi Nishida

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4126

22852

7590

02/06/2006

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER  
LLP

901 NEW YORK AVENUE, NW  
WASHINGTON, DC 20001-4413

EXAMINER

WALSH, RYAN D

ART UNIT

PAPER NUMBER

2852

DATE MAILED: 02/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/781,620	<b>Applicant(s)</b> NISHIDA ET AL.	
	<b>Examiner</b> Ryan D. Walsh	<b>Art Unit</b> 2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 37-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 and 37-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                    |                                                                             |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____                                                |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/23/2005</u>                                                            | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments, see Page 11, Paragraph 3, filed January 5, 2006, with respect to the rejection(s) of claim(s) 1-3, 5-10, 12-17, and 19-21 under 35 U.S.C. 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Tokukai (2000-98758). Claims 1, 8 and 15 have been amended to include the canceled subject matter of claims 4, 11 and 18 respectively, which were previously rejected under 35 U.S.C. 103(a) in the office action dated August 23, 2005. The office currently takes the same position regarding claims 4, 11 and 18, and discussion of these claims will follow (35 U.S.C. 103 (a) rejections).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-21 and 37-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa et al. (US Pub. 2003/0095815) in view of the acknowledged prior art (No. Tokukai-2000-98758).

Regarding claim 1, Nakagawa et al. teach, "An image forming apparatus comprising: a transfer section (222 a, b, c, d) which transfers a toner image onto an intermediate transfer body or a transfer material (213) to form an image on the

intermediate transfer body or the transfer material; a selection section [0102] for selecting one mode among a plurality of modes including a first mode for forming the image by using a plurality of colors including a first color and a second mode for forming the image by using less number of colors including the first color than that of the colors in the first mode [0104]." Nakagawa et al. do not teach, "a control section for controlling a current value or a voltage value of the transfer section to control a transfer rate of each of the toner images." However, the control section that controls a current value or a voltage value of the transfer section to control a transfer rate of each of the toner images is routine in the art as taught by the acknowledged prior art (Page 4, Ln. 3-7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nakagawa et al. invention to include the control section that controls a current value or a voltage value of the transfer section to control a transfer rate of each of the toner images. Also regarding claim 1, Nakagawa et al. teach, "wherein the control section controls the transfer section in order that a transfer rate of a toner image of the first color in the second mode is larger than that of a toner image of the first color in the first mode when toner images are transferred onto the intermediate transfer body or the transfer material by the transfer section (Fig. 8b & 9b, impliedly teach controlling transfer rates of a transfer process to change accordingly)."

The ordinary artisan would have been motivated to modify Nakagawa et al. invention in a manner described above for at least the purpose of correlating proper toner transfer to the recording material.

Regarding claim 2, Nakagawa et al. teach, "wherein, the image is formed by using only one color in the second mode ([0105], Ln. 1-3)."

Regarding claim 3, Nakagawa et al. teach, "further comprising a plurality of image bearing bodies, on which the toner images having different colors from one another are formed (222 a, b, c, d), wherein an image bearing body on which a toner image is not formed among the plurality of image bearing bodies is separated from the intermediate transfer body in the second mode [0105]."

Regarding claim 5, Nakagawa et al. teach, "wherein the image forming apparatus comprises the intermediate transfer body having an endless belt-like shape (Fig.1, ref. # 216)."

Regarding claim 6, Nakagawa et al. teach, "further comprising a carry section (225 a, b, c, d) for carrying the transfer material, which has an endless belt-like shape (213)."

Regarding claim 7, Nakagawa et al. teach, "wherein the first mode is a full color mode using the toner images formed on all of the plurality of image bearing bodies, and the second mode is a monochrome mode using a toner image formed on one of the image bearing bodies among the plurality of image bearing bodies [0104]."

Regarding claim 8, Nakagawa et al. teach, "An image forming apparatus comprising: a transfer section (222 a, b, c, d) which transfers a toner image onto an intermediate transfer body or a transfer material (213) to form an image on the intermediate transfer body or the transfer material; a selection section [0102] for selecting one mode among a plurality of modes including a first mode for forming the

image by using a first number of colors and a second mode for forming the image by using a number of colors which is smaller than the first number of colors [0104] .”

Nakagawa et al. do not teach, “a control section for controlling a current value or a voltage value of the transfer section to control a transfer rate of each of the toner images.” However, the control section that controls a current value or a voltage value of the transfer section to control a transfer rate of each of the toner images is routine in the art as taught by the acknowledged prior art (Page 4, Ln. 3-7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nakagawa et al. invention to include the control section that controls a current value or a voltage value of the transfer section to control a transfer rate of each of the toner images. Also regarding claim 8, Nakagawa et al. teach, “wherein the control section controls the transfer section in order that a transfer rate of a toner image of the first color in the second mode is larger than that of a toner image of the first color in the first mode when toner images are transferred onto the intermediate transfer body or the transfer material by the transfer section (Fig. 8b & 9b, impliedly teach controlling transfer rates of a transfer process to change accordingly).”

The ordinary artisan would have been motivated to modify Nakagawa et al. invention in a manner described above for at least the purpose of correlating proper toner transfer to the recording material.

Regarding claim 9, Nakagawa et al. teach, “wherein, the image is formed by using only one color in the second mode ([0105], Ln. 1-3).”

Regarding claim 10, Nakagawa et al. teach, "further comprising a plurality of image bearing bodies, on which the toner images having different colors from one another are formed (222 a, b, c, d), wherein an image bearing body on which a toner image is not formed among the plurality of image bearing bodies is separated from the intermediate transfer body in the second mode [0105]."

Regarding claim 12, Nakagawa et al. teach, "wherein the image forming apparatus comprises the intermediate transfer body having an endless belt-like shape (Fig.1, ref. # 216)."

Regarding claim 13, Nakagawa et al. teach, "further comprising a carry section (225 a, b, c, d) for carrying the transfer material, which has an endless belt-like shape (213)."

Regarding claim 14, Nakagawa et al. teach, "wherein the first mode is a full color mode using the toner images formed on all of the plurality of image bearing bodies, and the second mode is a monochrome mode using a toner image formed on one of the image bearing bodies among the plurality of image bearing bodies [0104]."

Regarding claim 15, Nakagawa et al. teach, "An image forming apparatus comprising: a transfer section (222 a, b, c, d) which transfers a toner image onto an intermediate transfer body or a transfer material (213) to form an image on the intermediate transfer body or the transfer material; a selection section [0102] for selecting one mode among a plurality of modes including a first mode for forming the image by using a plurality of colors and a second mode for forming the image by using less number of colors than that of the colors in the first mode [0104]." Nakagawa et al.

do not teach, “a control section for controlling a current value or a voltage value of the transfer section to control a transfer rate of each of the toner images.” However, the control section that controls a current value or a voltage value of the transfer section to control a transfer rate of each of the toner images is routine in the art as taught by the acknowledged prior art (Page 4, Ln. 3-7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nakagawa et al. invention to include the control section that controls a current value or a voltage value of the transfer section to control a transfer rate of each of the toner images. Also regarding claim 15, Nakagawa et al. teach, “wherein the control section controls the transfer section in order that a transfer rate of a toner image of the first color in the second mode is larger than that of a toner image of the first color in the first mode when toner images are transferred onto the intermediate transfer body or the transfer material by the transfer section (Fig. 8b & 9b, impliedly teach controlling transfer rates of a transfer process to change accordingly).”

The ordinary artisan would have been motivated to modify Nakagawa et al. invention in a manner described above for at least the purpose of correlating proper toner transfer to the recording material.

Regarding claim 16, Nakagawa et al. teach, “wherein, the image is formed by using only one color in the second mode ([0105], Ln. 1-3).”

Regarding claim 17, Nakagawa et al. teach, “further comprising a plurality of image bearing bodies, on which the toner images having different colors from one another are formed (222 a, b, c, d), wherein an image bearing body on which a toner



image is not formed among the plurality of image bearing bodies is separated from the intermediate transfer body in the second mode [0105].”

Regarding claim 19, Nakagawa et al. teach, “wherein the image forming apparatus comprises the intermediate transfer body having an endless belt-like shape (Fig.1, ref. # 216).”

Regarding claim 20, Nakagawa et al. teach, “further comprising a carry section (225 a, b, c, d) for carrying the transfer material, which has an endless belt-like shape (213).”

Regarding claim 21, Nakagawa et al. teach, “wherein the first mode is a full color mode using the toner images formed on all of the plurality of image bearing bodies, and the second mode is a monochrome mode using a toner image formed on one of the image bearing bodies among the plurality of image bearing bodies [0104].”

Regarding claims 37-39, Nakagawa et al. teach, “wherein the control section controls a transfer rate of each of the toner images turn into the same transfer rate in the first mode (Fig. 10, steps s110-s112 impliedly teach changing transfer speeds to match the specific mode (monochrome or full color)).”

Regarding claims 40-42, Nakagawa et al. teach, “further comprising a plurality of transfer sections severally provided corresponding to each of the plurality of image bearing bodies (Fig. 1, ref. #'s 225(a-d)), wherein the control section controls a current value or a voltage value of each of the plurality of transfer sections turn into the same current value or the same voltage value in the first mode (Fig. 10, steps s110-s112

impliedly teach changing transfer speeds to match the specific mode (monochrome or full color), changing the transfer rates corresponds to a current or voltage value).”

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

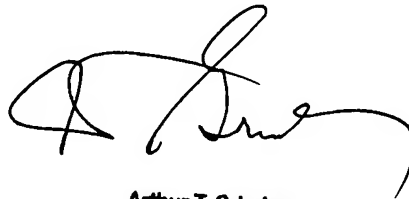
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan D. Walsh whose telephone number is 571-272-2726. The examiner can normally be reached on M-F 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on 571-272-2136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ryan D. Walsh  
Patent Examiner  
Art Unit 2852

A handwritten signature in black ink, appearing to read 'Arthur T. Grimley', with a stylized, flowing script.

**Arthur T. Grimley**  
**Supervisory Patent Examiner**  
**Technology Center 2800**